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Atari Online News, Etc.  
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~ No-No for Federal Jury ~ Advertisers on Twitter! ~ Apple Versus DRI!

-\* Apple's Victory Over Samsung \*-  
-\* Facebook Going After Fake "Likes"! \*-  
-\* Pentagon Fighting Taliban on Social Media! \*-

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->From the Editor's Keyboard

"Saying it like it is!"

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I mentioned it earlier, but here we are at the onset of Labor Day weekend, the unofficial end of the summer. School starts next week for most, and the tourists finally return home for another year. Over the past few years, I've mentioned how quickly time seems to fly by, but this year seemed to have gone by at light speed! Since March, we've been locked down with a number of personal issues that have been taking up a lot of our spare moments, and those that weren't "spare". And, there's still no end in sight. We're hoping by year's end all will be resolved, but we're also being slightly pessimistic! Legal red tape is totally unpredictable!

So, as we prepare for a session of barbecues or two, this will likely be a typical weekend where there's no real extra time for relaxation. And, my work schedule remains the same, so no holiday off for me! Hopefully, you're in a better situation, so enjoy the long weekend. It may be the "last" weekend of summer, but please behave appropriately!

Until next time...

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->In This Week's Gaming Section - Sanctions Block Iran Gamers from WoW!  
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World of Warcraft Is So 5 Years Ago!  
Play Old-school Atari Games in HTML5!

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->A-ONE's Game Console Industry News - The Latest Gaming News!

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Sanctions Block Iran Gamers from World of Warcraft

They've vanquished elves, trolls, and all manner of magical monsters. But one select group of online gamers is facing an even more formidable foe: The U.S. sanctions regime.

Iranian players of "World of Warcraft," the massively popular online multiplayer franchise, have found themselves frozen out by Blizzard Activision Inc., the American company behind the game. Iranian role playing enthusiasts have spent much of the past week peppering Blizzard's message board with complaints about how they weren't able to log on to the service only to be told recently that U.S. law was to blame.

"United States trade restrictions and economic sanction laws prohibit Blizzard from doing business with residents of certain nations, including Iran," the company said in an email sent to players last week and forwarded to The Associated Press late Tuesday. "Blizzard tightened up its procedures to ensure compliance with these laws, and players connecting from the affected nations are restricted from access to Blizzard games and services."

A post to Blizzard's message board by a company employee also noted that rules meant Iranian players would not be getting refunds.

Blizzard's "Warcraft" franchise dates back to 1994 and has grown into a sprawling virtual world complete with its own online economy and a thriving subculture. The game's more than 9 million subscribers can log on to assume the identity of a dizzying array of fantastical characters and fight together or each other for experience, magical weapons, and loot.

It wasn't clear precisely how many players were affected by the block. Blizzard's public relations director, Rob Hilburger, said that the company doesn't break player data out by country or region for competitive reasons. But he said the Iranian market compromised only "a tiny fraction" of the company's subscribers worldwide.

Hilburger didn't immediately respond to a question asking why the company had only recently blocked Iranian players from its service.

The United States and its allies have been steadily increasing economic pressure on Iran as it tries to convince the Islamic republic to open up about its disputed nuclear program, which Western governments fear is a cover for the development of atomic weapons. Tehran insists the program is intended for civilian energy generation.

#### World of Warcraft Is So Five Years Ago

Iranian gamers may be freaking out about losing access to World of Warcraft, but apparently the game as a whole is falling from its nerdy perch, according to an interactive chart by Paid Content's Robert Andrews:

Andrews used data from WoW developer Activision-Blizzard's majority owner Vivendi to make the chart. If you go to the original, you can roll over dots to see the exact number of subscribers in each quarter. In the latest quarter, the game had 9.1 million subscribers, which is nearly the same as the level five years ago.

Blizzard CEO Michael Morhaime said in an earnings call that the drop in

users was coming from the East, which Andrews explains may be due to a competitive gaming market in China.

Despite its decline, WoW is still the biggest subscription-based multiplayer online role-playing game in the world, Morhaime said. So active WoW players need not worry about losing friends. Well, unless you're Iranian.

#### Play Old-school Atari Games in Any HTML5 Web Browser

Ever get a hankering for some old-school Atari? Now you can play eight classic video games in any HTML5 Web browser, even on touch-screen smartphones and tablets.

Zap! Atari and Microsoft today launched Atari Arcade, an excellent example of how HTML5 can change the way we play video games.

The portal of retro entertainment - primarily launched to celebrate Atari's 40th anniversary - includes Asteroids, Centipede, Combat, Lunar Lander, Missile Command, Pong, Super Breakout, and Yars' Revenge. The best part? It's free, and doesn't require Flash, Java, or any other plug-in to play, running solely on HTML5.

That means you can play these classic games in modern versions of Chrome, Firefox, Internet Explorer, Safari, and other HTML5-enabled Web browsers (such as those on Android and iOS devices). Talk about the perfect way to sneak a little game time in somewhere.

I tested a few of the games on an iPad 2 running Safari, and much to my surprise the experience worked very well. Atari and Microsoft created a special version of each game optimized just for touch-screen computers, and everything runs very responsively on Apple's tablet.

Unfortunately, it appears you may need to watch a 30-second commercial before playing each game (unless you use Internet Explorer, says The Verge). The Atari Arcade also worked perfectly in the latest version of Chrome for Windows.

Go get your game on, or watch this highly overproduced video below from the two companies showing off Atari Arcade. Atari also seeks interested HTML5 developers to help build games for the arcade.

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A-ONE's Headline News  
The Latest in Computer Technology News  
Compiled by: Dana P. Jacobson

Apple's Victory Means Soul-searching for Samsung

A U.S. jury's \$1 billion verdict against Samsung for what rival Apple claimed was the illegal copying of its iPhone and iPad designs signals a turning point for the South Korean electronics giant known for its prowess in adapting the innovations of others and nimbly executing production.

The verdict not only jolted the world of global gadgetry but also likely sparked some soul-searching in Suwon, South Korea, where the family-run Samsung conglomerate is based.

The world's top seller of smartphones finds itself in the post-iPhone reality, where the decades-long practice of industry mimicry now can mean a bruising legal challenge.

And so Samsung finds itself in a position of having to recreate itself as an innovator, not an imitator. But the switch, experts say, will be much more challenging and time-consuming than the shortcuts Samsung used to take.

"The case shows that Samsung is still inadequate in soft(ware) area, such as designs and patents," M.S. Hwang, a Hong Kong-based analyst at Samsung Securities, said in a commentary.

Samsung Electronics Co. has a top-heavy command structure that centers on the founding family. At the apex is 70-year-old Lee Kun-hee, who inherited the mantle from his father, Samsung founder Lee Byung-chull, in 1987.

The strict hierarchy has enabled speedy and bold investment and swift execution. That, plus the ability to build on the innovations of others, like Sony Corp. has helped Samsung become the world's largest maker of televisions, memory chips, liquid crystal display panels and now smartphones.

Its path is reminiscent of many Japanese companies, like Canon Inc. and Nikon Corp., which started out by copying European designs and then became innovators and pace-setters in the 1960s and 70s.

"It is impossible to be an innovator from the beginning," said Chang Sea-jin, a professor at National University of Singapore. "If you don't have a technology, imitating more advanced companies is the easiest way to catch up."

Samsung has long been regarded as a "fast follower" imitating or licensing technologies and then competing by lowering costs, improving quality and adding functions.

It overcame its belated entry into the memory chip business in 1983 with efficient mass production and investments. Today, Samsung supplies about 30 percent of the chips that go into electronic gadgets.

In the early 2000s, Samsung claimed leadership in the global television industry.

But when Apple released its cutting-edge iPhone in 2007, Samsung employees were likely too pressed to catch up to scrutinize possible patent encroachments. South Korea's idea of intellectual property is also less strict than that in the U.S., Chang said, and speedy execution is highly valued at Samsung.

Still, Samsung outsold Apple this year in smartphones by offering more

variety, including low-end phones for price-conscious consumers.

Last Friday, a jury in San Jose, California, ruled that Samsung went too far in copying the iPhone and the iPad. It awarded Apple \$1.05 billion, while a judge considers whether to ban sales of eight Samsung products in the U.S. Samsung has vowed to appeal.

Samsung's stocks plunged 7.5 percent in Seoul on the first trading day after the verdict, costing \$12 billion in market value. Samsung has vowed to appeal, but unsuccessful legal battles against Apple in a host of other countries means that Samsung has few choices other than to create its own design identity.

In the past few years, Samsung has been investing in design, not only in mobile phones, but also in televisions and home appliances. But the results were not near the level of revolutionizing the look and feel of a consumer electronics product or the way consumers interact with technology.

Bill Fischer, a professor at International Institute for Management Development in Lausanne, Switzerland, says Samsung still has not breached the divide between itself and consumer electronics companies such as Apple and Sony.

"They tend to take bigger risks regarding products brought to market, and they try to become creators of revolutionary new technologies," such as iPods, smartphones and Sony's Walkman music player, Fischer said in an email to The Associated Press. "This is a different mentality."

The choices that Samsung has made so far "are not choices conducive to growing the sort of design and customer-centricity that has long made Apple unique," he said.

That does not necessarily mean that Samsung must become another Apple. Samsung, which supplies mobile processors that work as a brain in the iPhone and the iPad, as well as displays and memory chips to Apple, reaches far and deep into the areas that Apple does not especially in electronics hardware manufacturing.

"Innovation does not necessarily mean an entire change. Doing better than the present and doing better than others are also innovation," said Lee Myoung-woo, who once led Samsung's consumer electronics businesses in the U.S. and is a professor at Hanyang University in Seoul.

"Even if other companies are not breaking away too far from the rules that Apple made with the iPhone, other companies can come up with product innovation in the areas that Apple didn't see," Lee said.

He cited the Galaxy Note as an example, a smartphone with an overblown screen that became popular.

#### Pentagon Fighting Taliban on Social Media Front

The U.S. military is ramping up efforts to counter the Taliban's growing presence on social media sites by aggressively responding to falsehoods and reporting violations of the sites' guidelines on violent threats, experts say.

Twitter accounts or websites associated with militant groups typically take responsibility for attacks whether or not they had anything to do with them.

But most of the information they provide is either exaggerated or false, said Army Lt. Col. T.G. Taylor, a spokesman for U.S. Central Command.

The Pentagon has become quicker and more effective at issuing rebuttals through Twitter and other venues, said Christopher Paul, an information operations analyst at RAND Corp.

"Insurgents have always wanted to make themselves look like winners," Paul said. "The Internet makes it a whole lot easier."

Winning the information war is particularly important in insurgencies, where shaping public opinion can count as much as what happens on the battlefield.

The Taliban and other militant groups issue statements and video to create a perception of chaos in the country and to undermine the legitimacy of the Afghan government.

Despite the Taliban's hostility to modernity, they have adapted well to social media, military officials said.

"They're all over Twitter," said Marine Lt. Col. Stewart Upton, a spokesman for Regional Command Southwest. "They're incessantly tweeting."

Internet access remains limited in Afghanistan, but increasingly people have cellphones and Taliban claims often spread from social media to satellite television and local news outlets. Militants also use a variety of languages on the Internet, including English.

The military has long struggled with how to counter enemy propaganda in Afghanistan. Insurgents post claims quickly and the military had been slow to respond, waiting to get the full story.

"We're getting better," Paul said. "There's a practical limit to how good we can get."

The military says it has reported militants when they have directly promoted violence.

Twitter could suspend an account if a user violates policies. Twitter spokeswoman Rachael Horwitz said the social networking service does not discuss specific accounts, including military requests.

Over the past year, Central Command, which oversees U.S. military operations in the Middle East, has reported about 10 social media violations by militants, Taylor said. In general, however, officers say they prefer to engage the Taliban openly rather than impede their right to free speech by trying to deny them access to the Internet.

"That would make it look like we're afraid to engage them on the moral battlefield and we're not," Upton said.

The more aggressive approach seems to be working. Increasingly, local media is seeking out the coalition for its side of the story and eying Taliban claims more skeptically than in the past, the military said.

This week the Taliban took to Twitter to deny responsibility for the recent beheadings of 17 Afghans. The Afghan government dismissed the statement, saying the Taliban was responsible.

#### Facebook Cracks Down on Fake "Likes"

Facebook Inc is weeding out fake "Likes" on its social network that are being caused by spammers, malware and black marketeers as it strives to maintain credibility as an advertising platform.

Facebook said the number of Likes, or endorsements by users, on corporate pages is likely to drop by less than 1 percent, on average, after the crackdown.

"Newly improved automated efforts will remove those Likes gained by malware, compromised accounts, deceived users, or purchased bulk Likes," Facebook said in a post on its official blog on Friday.

"While we have always had dedicated protections against each of these threats on Facebook, these improved systems have been specifically configured to identify and take action against suspicious Likes," the post continued.

Thanks to a growing black market, companies can instantly raise their profile on Facebook by purchasing thousands of Likes at a time - a practice that is forbidden by the No. 1 social network, which has 955 million users.

Many of these Likes come from bogus Facebook user accounts rather than genuine users of the social network.

Meanwhile, various spam-like programs on Facebook deceive users into unwittingly liking something when they perform another action, such as clicking to watch a video.

Facebook said the cleanup will benefit both users and companies that maintain pages on the network, by giving a more accurate measurement of fan count and demographics.

Ensuring the integrity of Likes is serious business for Facebook, which depends on advertising revenue from large brands and other businesses. Many of the ad campaigns that companies conduct on Facebook are designed to garner Likes - a sign that their marketing message has resonated with consumers.

"It's their currency," said Jeremiah Owyang, a partner at research firm Altimeter Group. "Facebook is playing the Federal Reserve, to take the counterfeit currency off the market to ensure that there's quality in the marketplace."

The problem is not unique to Facebook, say analysts, who note that Twitter and Google Inc also grapple with fake accounts, spam and other techniques to game the service.

But for Facebook, the pressure to show that activity on its social network is genuine has grown as concerns have mounted on Wall Street about the

company's long-term profit potential.

Shares of Facebook set a new low on Friday, falling as much as 5.3 percent to \$18.08, after brokerages cut their price targets on the stock. Facebook has lost more than 50 percent of its market value since its initial public offering in May.

Facebook estimates that 1.5 percent of its users are "undesirable" accounts set up for purposes that violate its terms of service, according to its most recent 10-Q regulatory filing.

"I think what they're intending to do is get a handle on it before it gets really out of control," Brian Blau, an analyst with research firm Gartner, said.

"You can imagine no business wants to pay for advertising to fake accounts."

#### Samsung Takes Wraps off of Windows 8 Desktop PCs

Samsung will offer three different choices to people interested in buying a desktop computer equipped with a redesigned version of Windows going on sale this fall.

The personal computers previewed Tuesday by Samsung at a technology conference in Germany provided one of the first glimpses at the Windows 8 machines scheduled to hit the market on Oct. 26.

Windows 8's release has been widely anticipated because it's Microsoft's most dramatic overhaul of the operating system in at least 17 years. It's also coming out at a time when PC sales have been slowing as more people rely on smartphones and tablets to surf the Web.

Microsoft Corp. reprogrammed Windows 8 so it looks and works more like the touch-based systems on mobile devices. The three new Windows 8 desktops from Samsung will come with a high-definition touch display.

Several other major PC makers are expected to unveil their Windows 8 product lines in the upcoming weeks.

Samsung Electronics Co.'s Windows 8 computers for the desktop will have suggested prices of \$749, \$1,099 and \$1,699 depending on the size of the storage drive, the amount of system memory and the size of display screen.

All three models will run on Intel Corp. processors.

Windows 8 can be controlled by swiping the applications on the display screen or by using a keyboard or computer mouse.

The touch controls will be available through a mosaic of tiles to show applications and services that can be continuously connected to the Internet.

When relying on a keyboard, users will usually switch to a part of the operating system that looks much like earlier versions of Windows. However, Microsoft left out the familiar "start" button typically found

in the bottom left corner of the display screen.

In an effort to minimize the potential frustration caused by Windows 8's new look, Samsung built its own optional start button that can be used to pull up a menu of applications. This feature won't be found on all Windows 8 PCs and laptops from other manufacturers.

Samsung is expected to introduce its Windows 8 line of laptop computers later this week.

#### Mountain Lion Adoption Surpasses 10% in One Month

Apple released the latest version of its OS X operating system, Mountain Lion, just over a month ago and it can already be found on more than 10% of all Macs according to research from ad network Chitika. Within four days of its release, Mountain Lion already accounted for 5.65% of all OS X web traffic and since then has grown steadily. On August 27th, the operating system peaked at 10.3% and is en route to surpass the growth of OS X Lion, which took three months to reach 14%. Mountain Lion has already surpassed the 10% mark after only a single month, Chitika noted in its report. It's possible that Mountain Lion's growth will stall slightly once the post-launch excitement dies down, but should its rate of growth continue, the new OS will exceed Lion's mark within three weeks. The firm said that because of Mountain Lion's new features and positive reviews, users are more inclined to adopt the operating system at a faster rate than its predecessor. A second graph follows below.

#### Facebook and Twitter: A No-No for Federal Jurors

Federal judges are hoping you won't, and have a new list of instructions from the Federal Judicial Conference Committee on how to discourage social networking in the courthouse throughout cases. While you may just be browsing breaking news or your friends' updates, judges are concerned you'll engage in external research or leak details about the case.

The new guidelines, drafted in June and issued Friday, instruct judges how to best deter jurors from using Twitter, LinkedIn, Facebook or YouTube to research and communicate about the cases for which they're serving. Judges are told to review these instructions before the trial, at the close of each day before they return home, at the end of the case and at any other time deemed appropriate.

"Jurors should be told why refraining from use of social media promotes a fair trial," said Judge Julie Robinson, the Conference Committee on Court Administration and Case Management chair, in a statement. "Finally, jurors should know the consequences of violations during trial, such as mistrial and wasted time."

These instructions follow the results of a national survey of federal judges who reported that juror use of social media was most often reported by a fellow juror. Judges are encouraged to ask jurors to cut fellow jurors who violate the instructions against social networking.

Is social networking during court cases a problem judges need to address?

Let us know in the comments if you've seen this while serving on a jury.

## Twitter To Let Advertisers Zero in on Tweeters

Twitter Inc will begin allowing advertisers to directly target users based on the interests they reveal in their tweets, the social media company said Thursday.

No longer content to be a "dumb" bulletin board, with 400 million micro-messages posted daily, Twitter has moved to a strategy of actively sifting through what each user is reading and tweeting in order to discern every individual's interests.

Founded in 2006, Twitter is hoping to catch up to other consumer Internet companies that have found varying degrees of success by using technology to serve better-targeted ads.

For years, Google has reaped huge profits by displaying ads based on what a user searches for in its search engine, while Facebook encourages users to proactively input their "likes." But Twitter, by contrast, has long faced the challenge of indirectly inferring these preferences, something that marketers find less attractive for their needs.

In an effort to draw advertisers, the company on Thursday also slashed the minimum price of "promoted tweets" from 50 cents each to just a penny.

CEO Dick Costolo has said in recent months that his company's value lies in its ability to mine its flow of information to build "an interest graph" showing its users' preference profiles - which could be used by marketers to deliver targeted and relevant ads.

As part of its new targeting feature, Twitter will now allow advertisers to send paid ads, in the form of tweets, to users who are interested in any of the roughly 350 topics on a list curated by Twitter itself.

For instance, sports apparel retailers can target soccer fanatics for promotions, or film distributors might send tweets directed at keen Bollywood fans.

The new offering will allow companies to reach a "very narrow, very specific and incredibly focused audience," Kevin Weil, a Twitter director of product management, said in an interview.

Twitter engineers believe they can build a compelling ad delivery platform, particularly if marketers craft ads that seem to blend in with the tone and format of the service's flow of tweets, which are seen by some 140 million monthly active users.

In building its interest graph, Twitter analyzes "a host of signals," Weil said, including which accounts a user follows, as well as the subjects of tweets that are most frequently recirculated or replied to by the user.

The company's algorithms closely evaluate the latter, giving "a direct measure of what you're interested in," Weil said.

Between 1 and 3 percent of users who see a "promoted tweet" - a paid ad - click on the tweet in some way. But early beta tests have shown the

engagement rate to be higher when tweets are directed using its new interest-targeting tool, Weil said, while declining to discuss specific results.

Slashing the minimum bid price for ads would allow more brands to participate in its ad program but it did not reflect a lack of demand from advertisers for ads on the platform, Twitter said.

Valued at more than \$8 billion but expected by analysts to make less than \$300 million in revenue in 2011, Twitter has aggressively ramped up its advertising capabilities. But in streamlining its product to better show ads, the company has cracked down on how third-party services may use its content, sparking an outcry from Silicon Valley technologists who would like Twitter to remain a neutral media platform.

In protest against what they viewed as a Twitter experience increasingly corrupted by advertising, software developers in California this month launched App.net, a Twitter-like rival that is supported by a \$50 membership fee rather than ads.

#### Marissa Mayer Wants To Give Every Yahoo Employee An iPhone

Even while she was at Google, New Yahoo CEO Marissa Mayer used an Apple iPhone.

("I use lots of phones," she once told us.)

Now, according to two sources close to Yahoo employees, Mayer wants every employee at her new company to use one too.

To make sure they do, say these sources, she's considering using Yahoo's considerable cash reserves to buy one for every employee in the place.

We haven't been able to reach Yahoo PR to discuss all this, and we don't know if this consideration has turned into action yet. (Update: Kara Swisher says Mayer is open to giving Yahoo employees Android phones, too.)

Buying everyone at Yahoo an iPhone 5 would boost morale, just like free food has, but that's not the point.

A source familiar with Mayer's thinking tells us the reason she wants everyone to use an iPhone is to "get consistency across the company."

Apparently, Yahoo employees use all sorts of different devices BlackBerrys, iPhones, Androids, whatever and Mayer believes the company would be better off if it identified one device/platform on which it should make its products really shine, and got employees used to what it's like living with that platform.

In a guest post for Business Insider, ex-Yahoo Sriram Krishnan suggested Mayer make such a move:

No more BlackBerries as the official devices at Yahoo. Everyone gets an iPhone or anAndroid. Fire the IT people who protest. Upgrade internal IT and development systems/tools to what modern startups use. Hard to expand on this without breaking confidentiality but every Yahoo engineer reading this knows what I m talking about.

It's another smart move from Mayer.

The cost to Yahoo would be a couple million dollars or less chump change for a company that has billions lying around. The benefit is large. Yahoo should be innovating for the future, and BlackBerrys are not part of the future. They are part of the quickly fading past.

### Linux Is Leading The OS Race

For years now, Linux has been a black sheep standing in the shadow of Apple and Microsoft. Despite having a fervent and enthusiastic following, the operating system hasn't been able to grab a sizable share of the computing market and has instead been content to subsist on the customers that come away dissatisfied with the mainstream competition.

But that may be about to change. With the release of Microsoft Windows 8 on the horizon, some are saying Linux may have a great opportunity to steal a significant share of the market away from Microsoft, allowing it to finally take the helm as a major operating-system service provider.

Of course, a lot of that depends on what Microsoft does. The software titan is in the driver's seat, as per usual, but pressure to accommodate changing tech trends could force it into an error that opens doors for Linux.

In the simplest terms, Windows 8 is designed to be compatible with both personal computers and tablet PCs, featuring touch-screen functionality that can also be used with a keyboard and mouse. Also functional with the latest Windows program are remote backups. This function is important because it allows you to save and backup important files online.

The design is a vast departure from previous incarnations of the Windows operating system, featuring a sleek design intended to rival Apple's. Widgets and applications are easily available regardless of what type of computer you are using, and cloud sync functionality is emphasized by the software.

The risks all depend upon the public's reception. If traditional Microsoft users, who may be disinterested in the sleek design of Apple products, decide they're unhappy with the functional changes of Windows 8, they may look for alternatives. In the past, those who didn't want design to trump function usually shrugged off Apple products in favor of Microsoft. Now they'll have to go elsewhere.

Developers, other web services increasingly working with Linux

Even though it has continued to exist as a distant third option behind Microsoft and Apple, the staying power and efficiency of Linux have earned it greater accommodations from developers and other web-service providers. Web-hosting companies have increasingly made sure their hosting tools and services can accommodate Linux users.

That not only demonstrates a growing respect of the operating system, but it will make the transition to Linux easier for current Microsoft users. In the past, going to Linux could be a lonely move. Now, more businesses are making sure Linux users can be effectively served.

One of the greatest benefits of Linux over Microsoft is its potential for high-quality gaming. Because Linux is a stripped down, basic operating system, it allows more of a computer's resources to be put toward the actions a user desires, allowing you to take full advantage of the latest technology. This is a huge benefit to gamers, who want high-resolution gaming without any lag or technical hold-ups.

It's expected that Linux will be a growing hit among computer users who are primarily interested in getting the best software to support their online gaming. A gaming platform known as Steam is currently available on Linux and has plans to grow its offerings to more than 2,500 games, including the most recent releases. Steam has already been available on Apple and Microsoft, but Linux is better built to support the high-tech demands of the most innovative gaming, and as Steam expands its Linux operations, gamers may migrate.

How this all plays out depends on the public's reception of Microsoft Windows 8. If consumers by and large embrace the change, it could limit Linux's ability to expand. But even then there's the possibility that by distinguishing itself from the other operating systems, Linux will continue to develop a following that is seeking a reliable and strong product.

### Are You Being Monitored At Work?

A 2011 survey found that over half of US employers are monitoring their employees' computer usage. How can you find out if you are one of them? And if you are, what should you do about it?

There are two main ways employers track computer usage with monitoring software on your desktop, and by watching the traffic on the corporate network. Also, many companies have written guidelines about Internet usage and may indicate if they are monitoring you. HR departments should have these policies available for employee review.

Monitoring software tracks all your activity and sends logs to the boss or IT department. Without your knowledge, they may be receiving reports listing the websites you visit, time spent in specific software programs, or even how much you play solitaire. The programs that do this are myriad, but there are often signs that they're running.

On a Windows machine:

First, look in the system tray and start up folder. Do you see programs with names like VNC or LogMeIn, GoToMyPC, Shadow, SpyAgent, Web Sleuth and Silent Watch. An IT person can choose to hide these programs from the user so they are not in the Start Menu, but many assume the user won't look for them or know what these programs are.

The Windows taskbar often lists all the actively running programs. Check all the icons in the taskbar in the bottom right hand corner of the screen and make sure you know what each program is.

The Windows Firewall must give monitoring programs permission to send and receive information. Search 'firewall', open it, click 'exceptions' or 'add program'. Then look to see if any of the above-mentioned programs or any programs that are unknown to you have permission to pass through the ports.

On a Mac:

Open Finder and look under applications , click 'utilities' and launch 'activity monitor'. Search for unknown processes or any with VNC in the name.

If you see something in any of these places that you're unfamiliar with, search it online to see if it's a monitoring program.

(Sidenote- many of these monitoring programs can be purchased off the shelf and used to monitor home computers. These are also tools an ID thief could use on a public computer to collect data.)

If you do find any monitoring software on your work computer, do NOT try to remove it. Two reasons: first, doing so may make it look like you have something to hide, raising suspicions; second, your employer has a right to have this software installed on the computer. After all it's their machine.

The second way employers can monitor what you do on your computer is a lot harder to detect, because there's no trace on your personal machine; it's all done through the network. Employers can track the files you access on the corporate drives, the email you send through the company system, and the websites you visit via your work machine. And unless you have an "in" with the IT department, there's virtually no way to know if your company is monitoring traffic this way.

Since so many employers have the power to monitor their employees, it's safest to assume that you are being watched. But what if you really need to do something privately?

EMAIL: If you are hunting for a new job or your employer is strict about use of corporate accounts for personal email, use web-based email. Most of the major providers encrypt webmail (Yahoo is in the process of rolling out SSL encryption across its Mail network) so it can't be intercepted on the network.

SMARTPHONE: As long as you are connected over your cellular data connection (and not the company Wi-Fi), you can surf the web and send private email (on your non-corporate account) without detection.

ANONYMIZERS: There are services (usually for a fee for example, anonymizer.com for \$70) that will create a VPN or secure tunnel that hides all your traffic from the corporate network. These are handy tools to have if you need secure access to the Internet in unsecured locations like Wi-Fi cafes or public computers; they create a cloak around all IP addresses and data sent on the network. But an anonymizer may not hide your activity from a desktop monitoring program that grabs screen-shots, and many corporate IT departments forbid them and seek them out for removal from corporate machines.

#### Apple vs. DRI: The Other Look-and-feel Lawsuit

We all know about Apple's look-and-feel lawsuit against Microsoft over Windows 2.0, but this wasn't the only look-and-feel lawsuit Apple filed during those years. Digital Research, Inc., the company behind GEM, also found itself on the pointy end of Apple's needle. Unlike the lawsuit

against Microsoft, though, Apple managed to 'win' the one against DRI.

Digital Research, Inc. is a hallowed name in the industry. The company was founded by Dr. Gary Kildall to sell and further develop his CP/M operating system. In the first half of the '80s, DRI developed an implementation of the ISO standard Graphical Kernel System, a low-level system for 2D vector graphics, called Graphics System Extension. GSX eventually formed the basis for GEM.

GEM, or Graphical Environment Manager, was to serve as DRI's graphical user interface on top of CP/M and later DR-DOS and other versions of DOS. GEM's star shone particularly bright as the user interface for the Atari ST, a computer that competed with the Amiga, the original Macintosh, and earlier versions of Windows.

Apple wasn't happy with having to deal with competition, so the company started to sue everyone it thought it could get away with. We all know the lawsuit against Microsoft over Windows 2.0, which Apple eventually lost because Microsoft had actually licensed much of the GUI technology from Apple - Cupertino claimed this only covered Windows 1.0, but the courts disagreed. Ten elements were not covered by Microsoft's license, but the courts ruled that these were not worthy of protection.

Interestingly enough, Apple didn't just sue Microsoft over look and feel - two other companies were sued as well: Hewlett-Packard and Digital Research. The suit against HP was about NewWave, an object-oriented desktop system that ran on top of Windows. This lawsuit was part of Apple vs. Microsoft, and Apple lost it as well. The lawsuit against DRI, however, never fully materialised, because DRI wasn't looking for a prolonged legal battle, and as such, decided to make several alterations to GEM/1.

This resulted in GEM/2. The trash icon was altered, the desktop was replaced by two permanently open, fixed file manager windows, scrollbar blobs were made narrower, and animations were removed from the system. The goal was to please Apple into not suing the heck out of DRI, and this strategy eventually succeeded. A few small cosmetic changes, and GEM continued to exist in several forms for years and years to come.

The cool thing is that GEM had several advantages over the Macintosh, and two of those are pretty damn huge: GEM supported colour interfaces, and, more importantly, it could multitask. In other words, it had two high-profile features the Macintosh didn't offer, much like Windows 2.0 and NewWave.

However, that's not the common thread between Apple's lawsuits against Microsoft, HP, and DRI. You may wonder why Apple never sued Commodore for the Amiga, which also sported a graphical user interface containing several of the elements Apple claimed ownership over. It's actually quite simple: unlike AmigaOS and its Workbench, Windows, NewWave, and GEM all ran on DOS... And more importantly, on IBM-compatible PCs. Considering IBM was Apple's biggest competitor, the company was adamant in ensuring the graphical user interface did not find its way to IBM-compatible machines.

That's why the argument about copying/stealing/whatever is laughed away by those of us with an understanding of history. Apple sued Microsoft, DRI, and HP not because they felt wronged, but because they were afraid of the competition that would result from these companies bringing credible user interfaces to IBM-compatible hardware. Since the Amiga was a separate and unique hardware platform, Apple knew Commodore would not be able to

compete in the long term, so it didn't bother to sue Commodore. Apple's fears became reality - the Amiga withered away into irrelevance and the IBM PC took over the industry - and it nearly killed Apple.

You can easily draw a parallel to today. Apple didn't sue over WebOS or Bada (which looks virtually identical to TouchWiz, I might add); they sued Android, because it's basically today's IBM-compatible platform. You'll also note that the focus of Apple's legal actions used to be HTC, but when Samsung rose to prominence in the Android space, the South-Korean company became the focus instead. Anyone even only slightly versed in pattern recognition can see the obvious.

You know what the irony is of all this? One of the main developers behind GEM was Lee Jay Lorenzen, and get this: before joining DRI, he worked at Xerox PARC on the very same user interfaces upon which the Macintosh was built. In other words, Apple took what was partially his work, implemented it for the Macintosh, and then sued over Lorenzen's own post-Xerox interface!

The irony is so thick here you could cut it with a knife.

#### Advice from a Hacker on Picking a Good Password

As mass hacks abound, it's hard to know the best way to handle our Internet security, so we went to a password expert to figure out how best to protect ourselves. Alex Horan is a proclaimed "white hat hacker," meaning he hacks "for good, not evil" in the words of the public relations liaison for CORE Security, where Horan is a product manager. He, like us, believes the password system these days isn't ideal for people trying to protect their online info. Though hacks are happening more often for various reasons (as discussed here), there is one part of the dysfunctional system we can control: Our own password habits.

But Horan does not blame us for not using ideal passwords. One of the biggest problems with passwords is the glut of sites that require them. "The end users are really in a bind," Horan said. "More and more things are online and there is no ability yet for me to have a single online ID where I can use the same user name and password to authenticate to some central database." Right now, people are asked to create new usernames and new passwords for everything. When our creativity wanes (and our memories dim) we often resort to reusing the same password. But that's unsafe. The biggest danger of a password hack is that a password found at one site can be used to get into other, more important accounts. (That's what happened to James Fallows' wife, as he explained in *The Atlantic*.) The other option is to have different codes for everything, which is unreasonable and annoying. A recent survey found 38 percent of respondents would rather clean a toilet than think of new combinations. Another 38 percent said they would rather tackle world peace. So what to do? Here's what Horan suggests.

Save brain space for the really important accounts. For the stuff that really matters, like bank accounts, for example, Horan suggests we use unique passwords for each and every one of them. For the less important stuff, it might make sense to choose a "dumb password," a suggestion we had a few weeks ago. That doesn't totally eliminate the so-many-things-to-remember issue, but it compartmentalizes things. Also, I sometimes forget which passwords I picked for what sites, this system

would help me remember, at the very least, what type I picked.

Forget password, think passphrase. A password indicates some intricate combination of letters and numbers (and maybe symbols) that looks hard to guess. Those are hard to remember, and not always impenetrable. A passphrase, instead, consists of a string of whole words. Like, a line of a book, or a song lyric, Horan suggests. "The first line of my favorite book is very hard for someone to guess and also very hard for a computer to brute force." (A brute force attack is when a computer program does hyper-speed password guessing, which is what happened with LinkedIn.) One extra character makes it exponentially more difficult to crack, as this chart Horan provided shows.

Longer is better, but harder to remember if it's a nonsensical code. So Horan suggests making it something that isn't a single word someone would think of, but that's easy for you to remember.

Don't use the same login for everything. Hackers don't generally look for multiple email addresses that have the same password, but rather hope the username-password combo exists elsewhere. To avoid this, Horan suggests we don't think passwords, but rather usernames. "For LinkedIn, have linkedin.alexanderhoran@gmail.com," instead of the standard YourName@gmail.com, he told us. That involves creating the unique Gmail account and then linking it up with your standard mail address, which sounds like a lot of work to us. But it is just a one-time set-up and a lot easier to remember than a bunch of random letters and numbers.

Our password picking habits aren't the only reason passwords have failed us. A lot of it has to do with the way websites do (or rather, do not) protect us. Not all these sites are using the most secure systems. The Yahoo Voices system, which was hacked last month, didn't use encryption, for example. LinkedIn added salting - a system that inserts random characters into a password hash, making it harder for hackers - not too long ago. Horan also has suggestions for how sites can do better.

Use a well known public encryption scheme. To sites that don't encrypt at all: Get on that. But, Horan says there is a misunderstanding that a homemade scheme does better than a mass-used one. He says that is wrong. "With a private one you might miss a problem. And then, even if you find it you've got to fix it." A well-vetted public one is a better bet.

Use a strong, long salt. The more intricate the salt, the harder it will be for a brute force attacker to crack it. Makes sense.

Be transparent. At this point, we just hand over our information to companies and trust them with our keys. If we knew what kind of protection these sites had, maybe we would think before locking important stuff up behind something that's about as secure as childproof medicine caps. "They should tell us the effort they make in general to protect the passwords," he said. Then, people like him could check for holes. And people like us could be conscious of what's what. Though, we offer a more cynical point of view than Horan. People don't read terms of service agreements, why would they bother with some technical password protection mumbo jumbo?

## The History of the Floppy Disk

In the fall of 1977, I experimented with a newfangled PC, a Radio Shack

TRS-80. For data storage it used I kid you not a cassette tape player. Tape had a long history with computing; I had used the IBM 2420 9-track tape system on IBM 360/370 mainframes to load software and to back-up data. Magnetic tape was common for storage in pre-personal computing days, but it had two main annoyances: it held tiny amounts of data, and it was slower than a slug on a cold spring morning. There had to be something better, for those of us excited about technology. And there was: the floppy disk.

Welcome to the floppy disk family: 8 , 5.25 and 3.5

In the mid-70s I had heard about floppy drives, but they were expensive, exotic equipment. I didn't know that IBM had decided as early as 1967 that tape-drives, while fine for back-ups, simply weren't good enough to load software on mainframes. So it was that Alan Shugart assigned David L. Noble to lead the development of a reliable and inexpensive system for loading microcode into the IBM System/370 mainframes using a process called Initial Control Program Load (ICPL). From this project came the first 8-inch floppy disk.

Oh yes, before the 5.25-inch drives you remember were the 8-inch floppy. By 1978 I was using them on mainframes; later I would use them on Online Computer Library Center (OCLC) dedicated cataloging PCs.

The 8-inch drive began to show up in 1971. Since they enabled developers and users to stop using the dreaded paper tape (which were easy to fold, spindle, and mutilate, not to mention to pirate) and the loathed IBM 5081 punch card. Everyone who had ever twisted a some tape or the horror! dropped a deck of Hollerith cards was happy to adopt 8-inch drives.

Before floppy drives, we often had to enter data using punch cards.

Besides, the early single-sided 8-inch floppy could hold the data of up to 3,000 punch cards, or 80K to you. I know that's nothing today this article uses up 66K with the text alone but then it was a big deal.

Some early model microcomputers, such as the Xerox 820 and Xerox Alto, used 8-inch drives, but these first generation floppies never broke through to the larger consumer market. That honor would go to the next generation of the floppy: the 5.25 inch model.

By 1972, Shugart had left IBM and founded his own company, Shugart Associates. In 1975, Wang, which at the time owned the then big-time dedicated word processor market, approached Shugart about creating a computer that would fit on top of a desk. To do that, Wang needed a smaller, cheaper floppy disk.

According to Don Massaro (PDF link), another IBMer who followed Shugart to the new business, Wang's founder Charles Wang said, I want to come out with a much lower-end word processor. It has to be much lower cost and I can't afford to pay you \$200 for your 8" floppy; I need a \$100 floppy.

So, Shugart and company started working on it. According to Massaro, We designed the 5 1/4" floppy drive in terms of the overall design, what it should look like, in a car driving up to Herkimer, New York to visit Mohawk Data Systems. The design team stopped at a stationery store to buy cardboard while trying to figure out what size the diskette should be.

It's real simple, the reason why it was 5..., he said. 5 1/4 was the smallest diskette that you could make that would not fit in your pocket.

We didn't want to put it in a pocket because we didn't want it bent, okay?

Shugart also designed the diskette to be that size because an analysis of the cassette tape drives and their bays in microcomputers showed that a 5.25 drive was as big as you could fit into the PCs of the day.

According to another story from Jimmy Adkisson, a Shugart engineer, Jim Adkisson and Don Massaro were discussing the proposed drive's size with Wang. The trio just happened to be doing their discussing at a bar. An Wang motioned to a drink napkin and stated 'about that size' which happened to be 5 1/4-inches wide.

Wang wasn't the most important element in the success of the 5.25-inch floppy. George Sollman, another Shugart engineer, took an early model of the 5.25 drive to a Home Brew Computer Club meeting. The following Wednesday or so, Don came to my office and said, 'There's a bum in the lobby,' Sollman says. And, in marketing, you're in charge of cleaning up the lobby. Would you get the bum out of the lobby? So I went out to the lobby and this guy is sitting there with holes in both knees. He really needed a shower in a bad way but he had the most dark, intense eyes and he said, 'I've got this thing we can build.'

The bum's name was Steve Jobs and the thing was the Apple II.

Apple had also used cassette drives for its first computers. Jobs knew his computers also needed a smaller, cheaper, and better portable data storage system. In late 1977, the Apple II was made available with optional 5.25 floppy drives manufactured by Shugart. One drive ordinarily held programs, while the other could be used to store your data. (Otherwise, you had to swap floppies back-and-forth when you needed to save a file.)

The PC that made floppy disks a success: 1977's Apple II

The floppy disk seems so simple now, but it changed everything. As IBM's history of the floppy disk states, this was a big advance in user-friendliness. But perhaps the greatest impact of the floppy wasn't on individuals, but on the nature and structure of the IT industry. Up until the late 1970s, most software applications for tasks such as word processing and accounting were written by the personal computer owners themselves. But thanks to the floppy, companies could write programs, put them on the disks, and sell them through the mail or in stores. 'It made it possible to have a software industry,' says Lee Felsenstein, a pioneer of the PC industry who designed the Osborne 1, the first mass-produced portable computer. Before networks became widely available for PCs, people used floppies to share programs and data with each other calling it the 'sneakernet.'

In short, it was the floppy disk that turned microcomputers into personal computers.

The success of the Apple II made the 5.25 drive the industry standard. The vast majority of CP/M-80 PCs, from the late 70s to early 80s, used this size floppy drive. When the first IBM PC arrived in 1981 you had your choice of one or two 160 kilobyte (K yes, just one K) floppy drives.

Throughout the early 80s, the floppy drive became the portable storage format. (Tape quickly was relegated to business back-ups.) At first, the floppy disk drives were only built with one read/write head, but another set of heads were quickly incorporated. This meant that when the IBM XT

PC arrived in 1983, double-sided floppies could hold up to 360K of data.

There were some bumps along the road to PC floppy drive compatibility. Some companies, such as DEC with its DEC Rainbow, introduced its own non-compatible 5.25 floppy drives. They were single-sided but with twice the density, and in 1983 a single box of 10 disks cost \$45 twice the price of the standard disks.

In the end, though, market forces kept the various non-compatible disk formats from splitting the PC market into separate blocks. (How the data was stored was another issue, however. Data stored on a CP/M system was unreadable on a PC-DOS drive, for example, so dedicated applications like Media Master promised to convert data from one format to another.)

That left lots of room for innovation within the floppy drive mainstream. In 1984, IBM introduced the IBM Advanced Technology (AT) computer. This model came with a high-density 5.25-inch drive, which could handle disks that could hold up to 1.2MB of data.

A variety of other floppy drives and disk formats were tried. These included 2.0, 2.5, 2.8, 3.0, 3.25, and 4.0 inch formats. Most quickly died off, but one, the 3.5 size introduced by Sony in 1980 proved to be a winner.

The 3.5 disk didn't really take off until 1982. Then, the Microfloppy Industry Committee approved a variation of the Sony design and the new 3.5 drive was quickly adopted by Apple for the Macintosh, by Commodore for the Amiga, and by Atari for its Atari ST PC. The mainstream PC market soon followed and by 1988, the more durable 3.5 disks outsold the 5.25 floppy disks. (During the transition, however, most of us configured our PCs to have both a 3.5 drive and a 5.25 drive, in addition to the by-now-ubiquitous hard disks. Still, most of us eventually ran into at least one situation in which we had a file on a 5.25 disk and no floppy drive to read it on.)

The first 3.5 disks could only hold 720K. But they soon became popular because of the more convenient pocket-size format and their somewhat-sturdier construction (if you rolled an office chair over one of these, you had a chance that the data might survive). Another variation of the drive, using Modified Frequency Modulation (MFM) encoding, pushed 3.5 diskettes storage up to 1.44Mbps in IBM's PS/2 and Apple's Mac IIx computers in the mid to late 1980s.

By then, though floppy drives would continue to evolve, other portable technologies began to surpass them.

In 1991, Jobs introduced the extended-density (ED) 3.5 floppy on his NeXT computer line. These could hold up to 2.8MBs. But it wasn't enough. A variety of other portable formats that could store more data came along, such as magneto-optical drives and Iomega's Zip drive, and they started pushing floppies out of business.

The real floppy killers, though, were read-writable CDs, DVDs, and, the final nail in the coffin: USB flash drives. Today, a 64GB flash drive can hold more data than every floppy disk I've ever owned all rolled together.

Apple prospered the most from the floppy drive but ironically was the first to abandon it as read-writable CDs and DVDs took over. The 1998 iMac was the first consumer computer to ship without any floppy drive.

However, the floppy drive took more than a decade to die. Sony, which at the end owned 70% of what was left of the market, announced in 2010 that it was stopping the manufacture of 3.5 diskettes.

Today, you can still buy new 1.44MB floppy drives and floppy disks, but for the other formats you need to look to eBay or yard sales. If you really want a new 3.5 drive or disks, I'd get them sooner than later. Their day is almost done.

But, as they disappear even from memory, we should strive to remember just how vitally important floppy disks were in their day. Without them, our current computer world simply could not exist. Before the Internet was open to the public, it was floppy disks that let us create and trade programs and files. They really were what put the personal in personal computing.

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